

Work Order ID 50163

July 9, 2009 11:28:45 AM



Page 1

Item ID: D3936-3
Revision ID: A-PRELIM
Item Name: Bottom

Accept



Setup Start



Stop



Start Date: 07/09/2009 Start Qty: 1.00

Required Date: 07/09/2009 Req'd Qty: 1.00



Cust Item ID

Customer



PRELIMINARY ISSUE

Reference:

Approvals: Process Plan: *MF*

Date: *09-01-09* Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D3936	A-PRELIM
-------	----------

100

0.00



Waterjet

FLOW CNC Waterjet

Memo

0.00

1-Cut as per Dwg D3936

Dwg Rev: *A-Prelim*

Prog Rev: *A-Prelim*

2-Deburr if necessary

=> ml 09 07 09 ①

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Quality Control

Memo

0.00

=> ml 09 07 09 ①

6061.040 B# 111224

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Page 2

Item ID: D3936-3

Accept



Setup Start



Revision ID: A-PRELIM

Item Name: Bottom

Stop



Start Date: 07/09/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 07/09/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

1 0 7/09/09

130

Brake NC
Memo
Bend as per Dwg

0.00



Brake NC

0.00

Brake NC

N/A



N/A parts being sent to angle AS flat. 7/09/09

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Work Order ID 50163

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Page 3

Item ID: D3936-3

Accept



Setup Start



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Stop



Item Name: Bottom

Start Date: 07/09/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 07/09/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

170

Identify as per dwg & Stock Location: _____

0.00



Packaging

Memo

0.00

Packaging

N/A parts being

Sent to eagle

AS flat. For 0.0705 x1

9/7/9 59 @

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Page 4

Item ID: D3936-3

Accept



Setup Start



Revision ID: A-PRELIM

Stop



Item Name: Bottom

Start Date: 07/09/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 07/09/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

~~POSITIVE RECALL~~

~~EFFECTIVE~~

~~AUTH~~

~~RELEASED~~

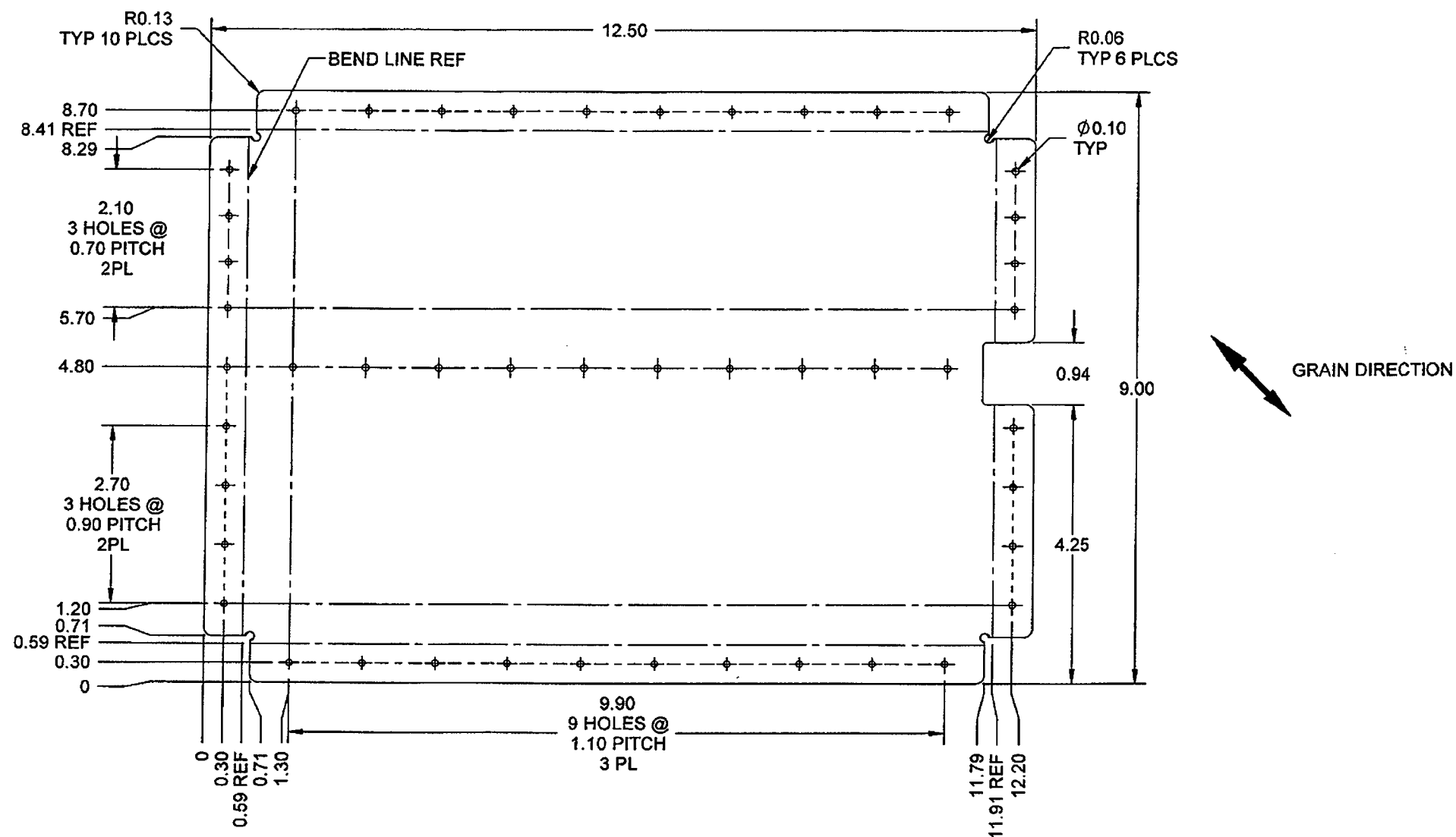
~~DATE~~

MF
09-07-09

Send
Harvey
Calgary
per
Mike P.

TESTED 9 SCRAP
PER DAVID S
&
Harvey S.

PRELIMINARY ISSUE



D3936-3F BOTTOM FLAT PATTERN

WPO9/07/09

NOTES:

- 1) MATERIAL: 6061-T6 (OR 6060-T62) ALUMINUM SHEET, 0.040 THICK
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
REF. DART SPEC M6061/T65.040
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.43 lbs

DESIGN	<i>JS</i>	DART AEROSPACE LTD	
DRAWN	<i>JS</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>ALS</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>E</i>	D3936	SHEET 5 OF 7
APPROVED		TITLE	SCALE
DE APPR.		MAPBOX	NTS
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Jason Murdoch

From: Mike Petsche [mpetsche@dartaero.com]
Sent: July 9, 2009 3:28 PM
To: 'Jason Murdoch'
Subject: map box

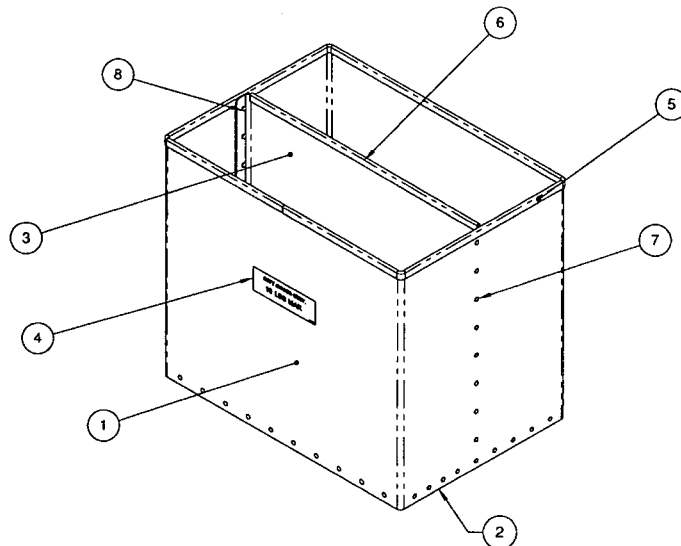
Please ship flat patterns to Harvey so Eagle can bend them up

Thanks

Mike Petsche
Design Manager
DART Aerospace
phone: 613-632-5200
mobile: 514-833-1657
skype: mike.petsche

09/07/2009

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	1	D3936-1	SIDES
2	1	D3936-3	BOTTOM
3	1	D3936-5	DIVIDER
4	1	D3938-3	PLACARD
5	1	D3941-40	RUBBER CUSHION
6	1	D3941-12	RUBBER CUSHION
7	56	MS20426AD3-4	RIVET
8	8	MS20426AD3-5	RIVET



D3936-041 MAPBOX ASSEMBLY

NOTES:

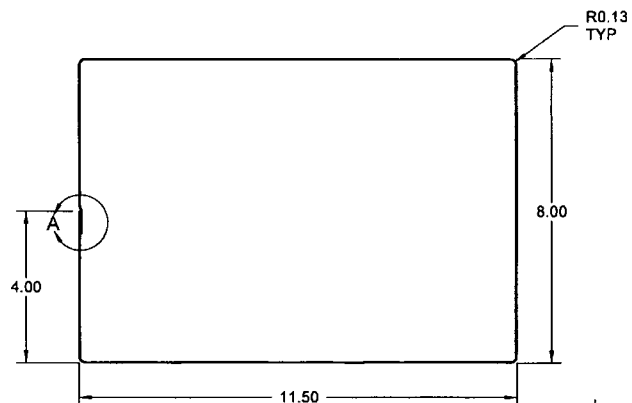
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "BLACK SANDEXT" (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3936-041" AND B/N USING A WHITE FINE POINT PAINT MARKER
- 7) WEIGHT: 2.54 lbs

ASSEMBLY INSTRUCTIONS

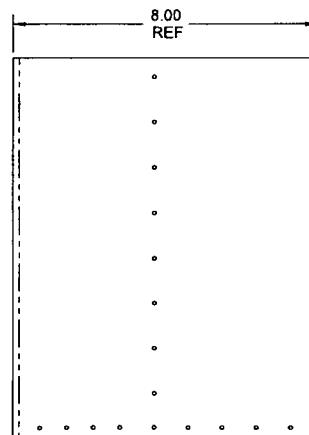
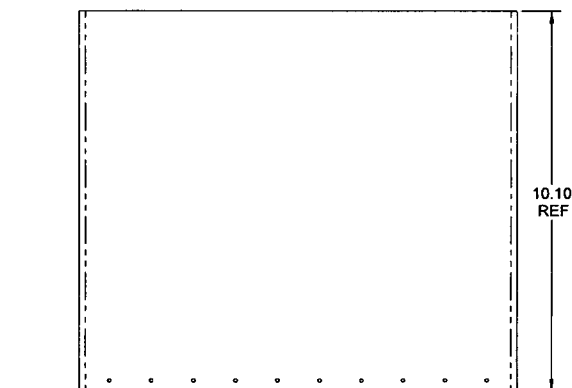
1. BEND D3936-1/-3/-5 PARTS PER SHEETS 2-7.
2. POSITION D3936-5 DIVIDER IN PLACE INSIDE THE D3936-1 SIDES AND CLECO IN PLACE.
3. POSITION THE D3936-3 BOTTOM IN PLACE AGAINST THE D3936-5 DIVIDER AND INSIDE THE D3936-1 SIDES.
4. TRANSFER DRILL 10X $\phi 0.098$ (#40 DRILL) HOLES FROM THE D3936-3 BOTTOM TO THE D3936-5 DIVIDER. PLACE CLECOS IN TRANSFER DRILLED HOLES TO MAINTAIN ALIGNMENT AS THEY ARE DRILLED.
5. TRANSFER DRILL 38X $\phi 0.098$ HOLES FROM D3936-1 SIDES TO D3936-3 BOTTOM. PLACE CLECOS IN TRANSFER DRILLED HOLES TO MAINTAIN ALIGNMENT AS THEY ARE DRILLED.
6. REMOVE ALL CLECOS AND COUNTERSINK 64X EXTERIOR HOLES $\phi 0.179$ X 100°. DEBURR ALL HOLES IN ALL PARTS.
7. REASSEMBLE PARTS USING CLECOS IN EVERY THIRD HOLE TO MAINTAIN ALIGNMENT.
8. RIVET D3936-1 SIDE TO D3936-5 DIVIDER USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER EVENLY.
9. RIVET D3936-5 DIVIDER TO D3936-3 BOTTOM USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER EVENLY.
10. RIVET D3936-3 BOTTOM TO D3936-1 SIDE USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER EVENLY.
11. POWDER COAT ASSEMBLY PER NOTE 2.
12. TEST FIT RUBBER CUSHION TO TOP EDGE OF MAPBOX. TRIM AS REQUIRED FOR PROPER FIT.
13. REMOVE RUBBER CUSHION.
14. APPLY SMALL BEAD OF SILICONE/ADHESIVE TO TOP EDGE OF MAPBOX.
15. SLIDE RUBBER CUSHION OVER EDGE AND PRESS INTO SILICONE/ADHESIVE.
16. WIPE OFF ANY EXCESS SILICONE/ADHESIVE BEFORE IT DRIES/CURES.
17. APPLY D3938-3 PLACARD AS SHOWN.
18. ALLOW SEALANT/ADHESIVE TO CURE/DRY 24 HRS BEFORE SHIPPING PART.

RELEASED
2009-08-28

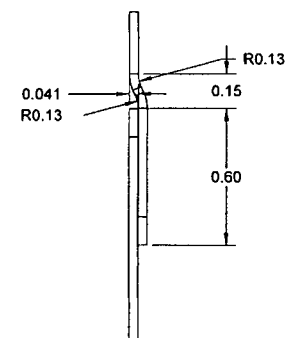
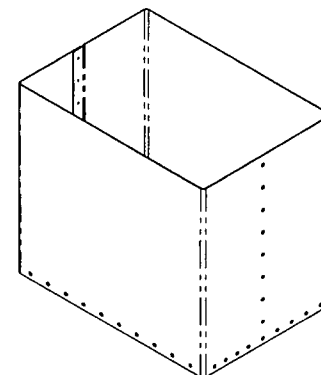
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DESIGN		DART AEROSPACE LTD			
DRAWN		HAWKESBURY, ONTARIO, CANADA			
CHECKED		DRAWING NO.		REV. A	
MFG. APPR.		D3936		SHEET 1 OF 7	
APPROVED		TITLE		SCALE	
DE APPR.		MAPBOX		NTS	
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R0.13
TYP



D3936-1 SIDES
MADE FROM D3936-1F



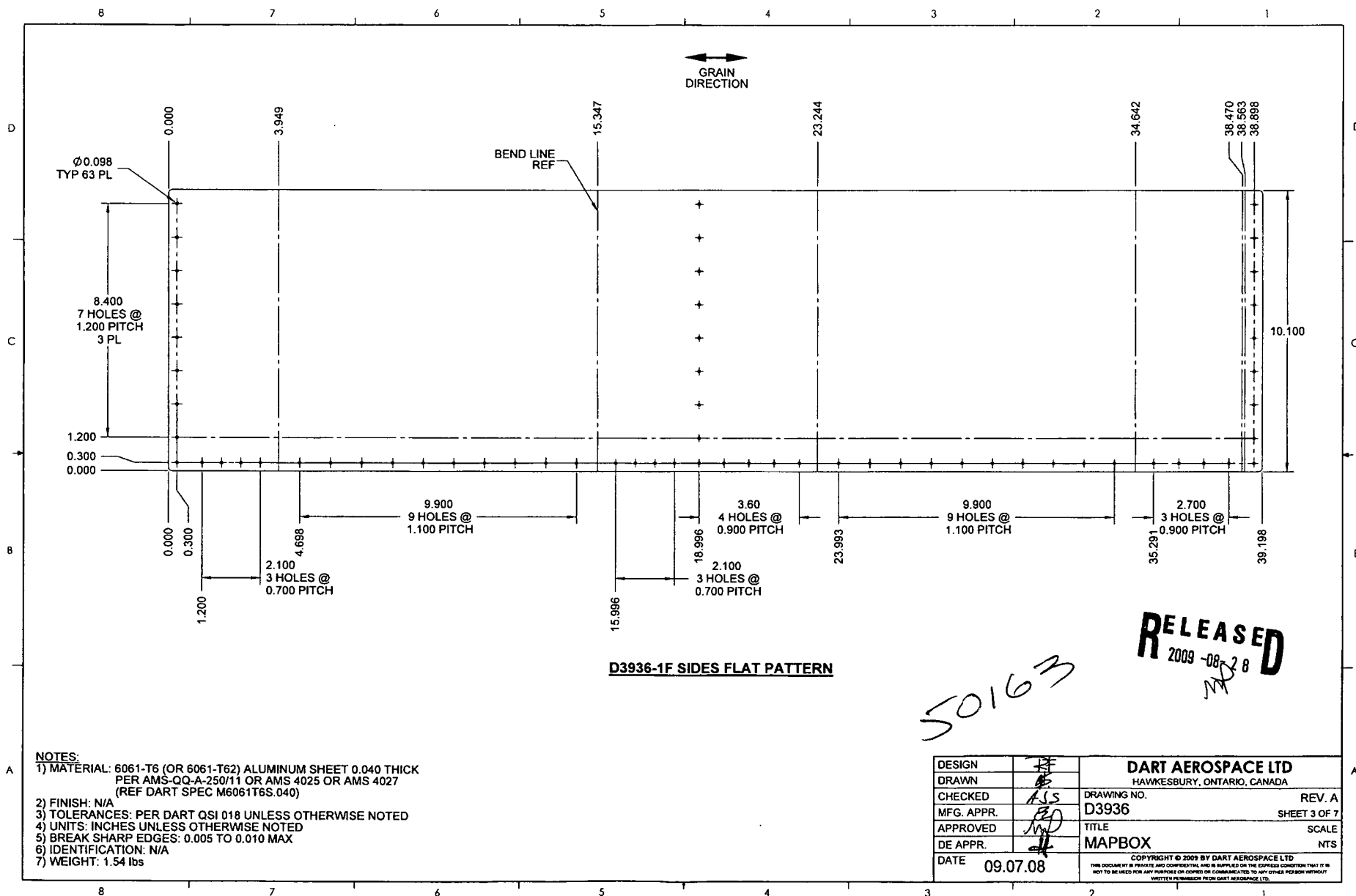
DETAIL A
SCALE 5x

RELEASED
2009-08-28
MB

NOTES:

- 1) MATERIAL: MADE FROM D3936-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.54 lbs

DESIGN	50163	DART AEROSPACE LTD	
DRAWN	AS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO. D3936	REV. A
MFG. APPR.	ED	SHEET 2 OF 7	
APPROVED	MB	TITLE MAPBOX	SCALE
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NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET 0.040 THICK
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
(REF DART SPEC M6061T6S.040)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.54 lbs

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CHECKED	AS	DRAWING NO.	REV. A
MFG. APPR.	ED	D3936	SHEET 3 OF 7
APPROVED	MD	TITLE	SCALE
DE APPR.	AS	MAPBOX	NTS
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2009-08-28
MD

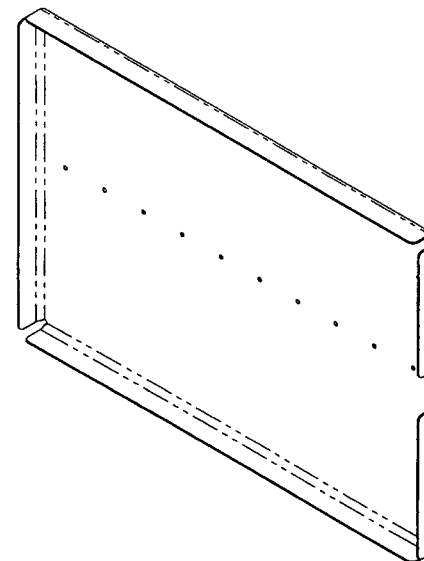
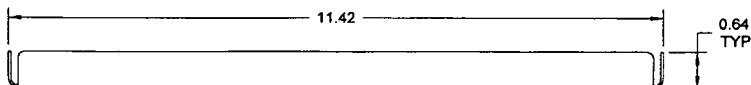
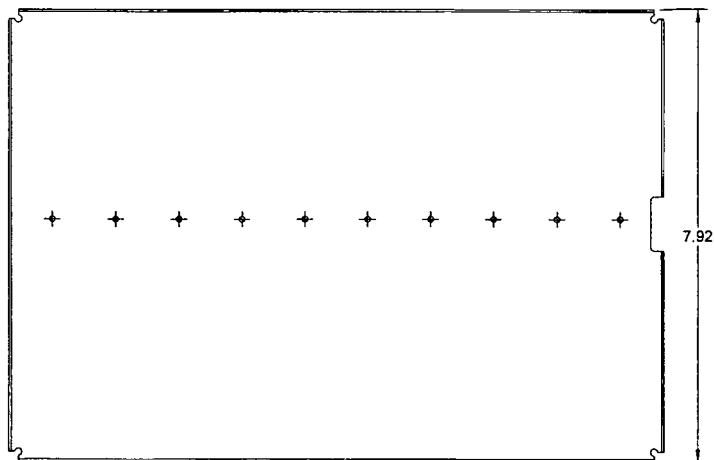
8 7 6 5 4 3 2 1

D

C

B

A



D

C

B

A

D3936-3 BOTTOM
MADE FROM D3936-3F

NOTES:

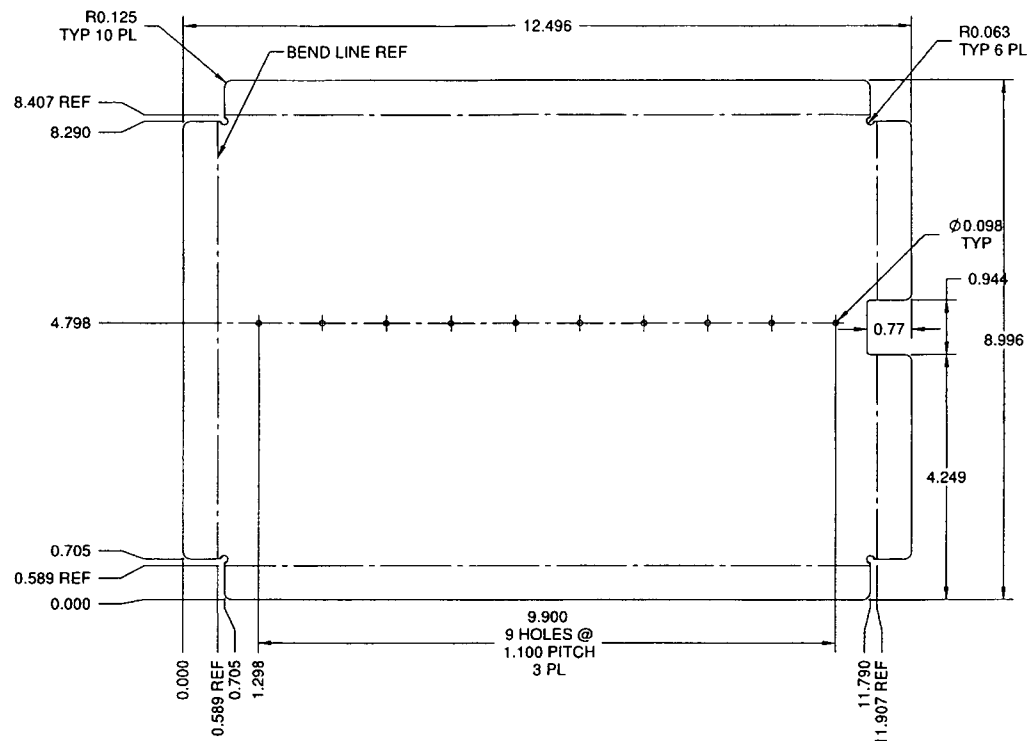
- 1) MATERIAL: MADE FROM D3936-3F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.43 lbs

50163

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2008-08-28
MM

DESIGN	3F	DART AEROSPACE LTD	
DRAWN	JS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JS	DRAWING NO. D3936	REV. A
MFG. APPR.	JS	SHEET 4 OF 7	
APPROVED	JS	TITLE MAPBOX	SCALE
DE APPR.	JS	NTS	
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8 7 6 5 4 3 2 1



D3936-3F BOTTOM FLAT PATTERN

NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET 0.040 THICK
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027
(REF DART SPEC M6061T6S.040)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.43 lbs

DESIGN	<i>JS</i>	DART AEROSPACE LTD	
DRAWN	<i>JS</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>ALS</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>JS</i>	D3936	SHEET 5 OF 7
APPROVED	<i>JS</i>	TITLE	SCALE
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2009-08-28
ND

50163

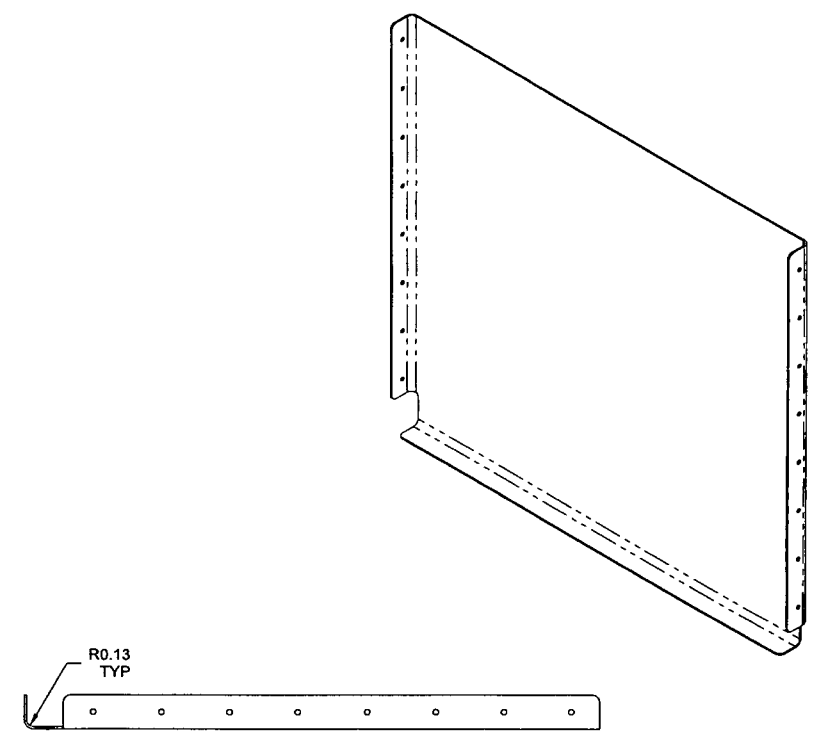
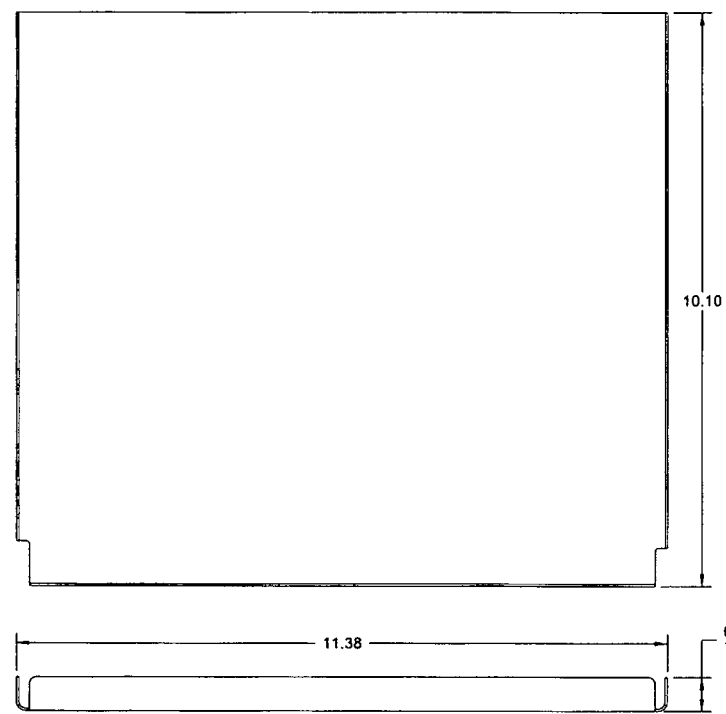
8 7 6 5 4 3 2 1

D

C

B

A



D3936-5 DIVIDER
MADE FROM D3936-5F

NOTES:

- 1) MATERIAL: MADE FROM D3936-5F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.50 lbs

50163

RELEASED
2009-08-28
MB

DESIGN	3F	DART AEROSPACE LTD	
DRAWN	3F	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	REV. A
MFG. APPR.	3F	D3936	SHEET 6 OF 7
APPROVED	MB	TITLE	SCALE
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8 7 6 5 4 3 2 1

